

Client:
Ref Project ... - PO
dd..... O/Ref: SO

1 General

- 1 voestalpine SadeF warrants in accordance with the terms and conditions of this warranty
 - a) # years of stability (= reference period) of the structure, if built correctly (according to our design data, structural drawings and assembly instructions) and maintained correctly (according to Inspection & Maintenance instructions).
 - b) With regard to the structural integrity of the TOP STRUCTURE (being the above-ground visible structure), we guarantee # years exclusively (i.e. only) that the profiles according to voestalpine deliveries and drawings used for the top structure do not rust through (i.e. perforation or rust-through has occurred only if the corrosion (the only factor) of a component of the supporting structure causes the supporting structure to fail).
 - c) With regard to the structural integrity of the piles (being the structures located underground), whether cast in concrete or not, we guarantee # years exclusively (i.e. only) that the profiles according to voestalpine deliveries and drawings used for the piles do not rust through (i.e. perforation or rust-through only occurred, if the corrosion (the only factor) of a component of the supporting structure causes the supporting structure to fail).

The warranty is limited to the repair or redelivery of non-conforming components. Under no circumstances will VA SadeF bear responsibility for assembly/disassembly or other indirect costs .

- 2 The warranty of the supporting structure voestalpine SadeF starts from the date of the last delivery (= #) by voestalpine SadeF.
- 3 This guarantee is provided for the supporting structure for the project
 - a. Name: #
 - b. Location: #on the basis of, among others, the following technical data:
 - c. For atmospheric environmental class: #
 - d. Based on the geological or soil report with reference #
 - e. Chemical soil report with reference: #

2 Conditions

1 The guarantee applies only if all the following conditions are met:

- a) All technical data provided by the customer as stipulated in voestalpine SadeF's Sector General Terms and Conditions Solar (product specifications and environmental factors) or adopted technical data are complete and correct and shall remain unchanged for the entire duration of the warranty.
- b) Installation of the supporting structure is carried out by a qualified installer in accordance with the voestalpine SadeF installation plan (structural drawings).
- c) The supporting structure must not be placed in an environment exposed to substances or constituents of any kind that may cause corrosion, such as, among others, corrosive chemicals of any kind, smoke or rainwater containing carbon, particles of heavy metals such as iron, copper, alkaline products such as ash, cement dust, manure or spray or animal faeces. This guarantee is not valid for areas with strong wear (desert areas with strong wind and sand wear, abrasion).
- d) The supporting structure shall be properly inspected and maintained in accordance with Article 3 of this warranty. In addition, the customer undertakes to clear snow immediately.

In case the technical data and studies provided by the customer do not mention and/or do not determine certain ground analysis characteristics, for the applicability of this guarantee, the characteristics determined below for the entire project shall apply as assumed technical data:

- i. Gravimetric quantity in fine grain < 50% (soil texture)
- ii. pH between 5.5 - 8.5
- iii. Soil resistivity > 5000 Ω x cm, measured at a distance < 6 m
- iv. Low chloride ion concentration < 150 mg/kg
- v. Low sulphate concentration < 500 mg/kg
- vi. Low sulphite concentration < 5 mg/kg
- vii. No fertilizers
- viii. No vertical soil heterogeneity exceeding the limits specified in this warranty document.
- ix. No effect of bacterial activity
- x. No stray currents
- xi. No presence of groundwater above the base of the piles.
- xii. No change in soil composition during the validity of this guarantee.

- 3 The guarantee does not apply until the customer has paid for all the products of the full supporting structure. However, the duration of the guarantee already starts from #, but the customer can only invoke the guarantee after full payment of the entire supporting structure.
- 4 The warranty is excluded for
 - Normal wear and tear.
 - Negligence, misuse, in particular deviations from use according to the manuals or design specifications, overloading of the structures or other components of the installation by the customer or a third party.
 - Any damage caused during or after the installation of the supporting structure.

- Damage caused by fire, lightning, flood, explosion, earthquake, acts of war, riot, radiation, falling objects, vandalism, ground settlements, movement or failure of foundations or other extraneous causes.

5 The guarantee does not apply to:

- parts of the piles fixed in concrete as far as not as follows:
 - a sufficient slope of the top of the concrete so that any rainwater or condensation water can drain easily away from the pile.
 - Avoid accumulation of dirt and moisture in transition zone concrete-post.
 - Use of a sealant (e.g. bitumen) between post and concrete, compatible with the metallic cladding of the post .
 - Use of frost- and crack-resistant concrete.
 - Splashed-up concrete on the piles was removed.
- parts of the supporting structure on which additional surface treatment has been applied after delivery by voestalpine SadeF, with the exception of local repairs with zinc-rich paint for areas limited to 10 cm² and with the exception of additional surface treatment on parts of the pile in contact with soil or concrete (e.g. bitumen), and on condition that the zinc-rich paint or additional coating is compatible with the originally chosen metallic coating.
- the cold-formed parts where water cannot drain freely, or in case of accelerated corrosion caused by water dripping on the profiles.
- the assemblies with other components, which could allow contamination or water to accumulate on the surface
- assembly with other surfaces so that the installation supplied by voestalpine is only separated from other materials by a narrow gap or touches these materials
- the areas within 50 mm of a weld.
- any other metal in direct/indirect contact with the galvanized profiles.
- The visual aspect of cut edges and surface discoloration, including from water run-off, is not covered by this guarantee.
- For damage incurred due to outdoor storage longer than 2 months before assembly .

6 The warranty is granted in personal capacity and is only transferable after written approval by voestalpine sadeF nv .

7 If any provision of the guarantee is unenforceable or invalid, the remaining provisions will remain in force.

3 Inspection and maintenance plan

1 The aforementioned guarantee only applies if the customer correctly carries out the inspections of the entire supporting structure mentioned below and if he maintains this supporting structure (both the profile parts and the connection parts) in accordance with the maintenance instructions mentioned below. Failure to comply strictly with all the requirements will result in the guarantee lapsing in full.

2 In order for the customer to be able to invoke the warranty granted to him, he shall provide proof by means of the necessary traceable inspection reports with fixed date that the inspections and maintenance below have been carried out correctly. Relevant data shall be kept in the form of a traceable report which shall be made available immediately upon first request by voestalpine SadeF.

3 All costs for carrying out necessary inspections and maintenance and repairs of normal damage, as listed below, shall be borne entirely by the customer.

3.1 [Inspections](#)

3.1.1 [Annual inspection](#)

1 The supporting structure must be inspected annually by the customer. This annual inspection shall at least take the form of a visual inspection of the entire supporting structure.

2 In the following cases, the customer must inform voestalpine SadeF immediately by sending the detailed inspection report:

- Upon determination of the first appearance of rust (excluding cut edges and surface discoloration due to run-off from cut edges or adjacent parts).
- When determining elements that can lead to corrosion
- When abnormal deformations , settlements or any possible danger to the continued functionality and stability of the supporting structure are detected.

3 The following items should be checked at each annual inspection:

- In particular, areas where there is a risk of accelerated zinc degradation of the guarantee products due to accumulation of dirt, dust and leaves or rain and condensation run-off .
- The areas where fixings in other material are in direct contact with the galvanized profiles (see clause 2.1.d), especially in case of a heavily corrosive environment (class C4 or higher).
- Random inspection of warranty products installed in soil (0.2% of all warranty products installed in soil) by removing the top 20 cm of soil to check for visual corrosion. After the inspection, the removed soil is put back again.
- Check for soil erosion that could potentially compromise the stability of the structure.
- In case of using the Fastslide system, check that on both sides of PV panels the panel is supported by the R62 click stop element. If this is not the case, voestalpine SadeF must be informed so that the necessary maintenance/repair instructions can be drawn up.

4 If the inspection reveals that maintenance work or repairs are required, the customer shall carry this out at its own expense and responsibility. The mere fact that voestalpine SadeF issues instructions to the customer to this effect shall not lead to any acknowledgement of liability by voestalpine SadeF. Failure to carry out maintenance work and/or repairs on time or in accordance with the instructions given shall result in the complete expiry of the warranty.

3.1.2 [Inspection every 5 years](#)

1 This inspection shall be carried out by the customer at the time of installation of the supporting structure, and every 5 years thereafter. Relevant data must be kept in the form of an irrefutable traceable record with fixed date which will be made available immediately upon first request by voestalpine SadeF.

2 The inspection should take the form of a measurement of the zinc coating thickness on a number of representative reference profiles chosen by the client under his responsibility. Repeated zinc coating thickness measurements (every 5 years) should be made at exactly the same location (points) of the profiles. These points should be marked on the profile in such a way that they are still visible at the next measurement 5 years later. The results of each inspection should be recorded and reported in a traceable inspection report.

- If measured layer thickness < 15 µm and the difference from the previous measurement is greater than 5 µm, the customer must inform voestalpine SadeF.
 - If measured layer thickness < 10 µm, the customer must inform voestalpine SadeF.
- The standard layer thickness is shown by the relevant ISO standards.

- 3 Inspection of guarantee products in soil: random inspection of the zinc layer thickness of guarantee products installed in soil (0.2% of all guarantee products installed in soil) is done by removing the top 20 cm of soil to check the thickness of the zinc layer at this level. After the inspection, the soil is put back again.

3.2 Maintenance

3.2.1 General

- 1 The instructions given below for cleaning the structure and repairing the damaged surface treatment are based on the current state of technology. Should these instructions change in the future in the light of further evolution of technology, voestalpine SadeF will incorporate this into the latest version of the warranty document, which can be consulted on the website: <https://www.voestalpine.com/sadef/Infocenter>.
- 2 Before every cleaning and repair, the customer undertakes to check the website and apply the instructions according to the latest state of technology.

3.2.2 Cleaning the structure

- 1 Dirt, leaves, animal faeces and, in general, all substances that may affect the surface treatment of the profiles, or impede the free flow of water, must be removed annually.
- 2 Procedure for cleaning: Rinse off contamination, impurities and white rust on the support structure. Cleaning should be done with water with a pH between 6 and 10, and without chemicals. If a pressure washer is used, the maximum pressure should not exceed 80 Bar and the distance between spray gun and galvanized material should be at least 50 cm.

3.2.3 Repair of damaged surface treatment

- 1 Damage to the surface treatment during ramming, installation or afterwards, such as scratches, dents, blisters, etc., should be repaired with a zinc-rich paint, after removing any corrosion. The repair must not damage the original metallic coating.
- 2 Any surface treatment, additional coating or painting beyond the case mentioned above in point 1, applied without prior approval, will result in the loss of the warranty.
- 3 If, after cleaning and upon inspection, already repaired damages, new damages or red rust are found, they should be repaired as follows:
 - Removal of any loose zinc flakes or coating particles
 - Removal of dirt and corrosion by scrubbing, filing and/or brushing, then degreasing with acetone. A hard nylon or stainless steel brush is used for brushing and scrubbing. Also clean the adjacent zinc layer that is still intact over a width of ± 10 mm and degrease with acetone.
 - The surface should be dedusted with compressed air or brush
 - Repair with high-zinc containing paint (at least 90% solids).

- The thickness of the repaired areas will be at least 100 µm.
 - Repairs should be carried out in dry weather on a dry structure.
- 4 Repairs should be made as soon as possible after preparation and before the development of visible oxides.

3.3 Notification of complaint

- 1 Warranty claims must be made by the customer by sending a quality inspection report with a detailed explanation, description and photographic material of the defect within 2 weeks of the discovery of the defect. All warranty claims must be made in writing and voestalpine sadef nv must have the opportunity to inspect the defective parts.
- 2 Any claims for defective parts must be made in writing within the warranty period. A copy of the invoice, the signed project-specific warranty document and the delivery and installation date must accompany the claim notification.
- 3 For complaints regarding soil corrosion, added to the notification :
 - The original soil analysis and corrosion evaluation report.
 - A subsequent soil test obtained for the respective warranty products for which warranty is claimed proves that the soil conditions at the installation site of the warranty product have met the conditions of the original soil report. The soil test must be prepared by an expert certified in accordance with DIN EN ISO/IEC 17024. The signature of the expert must be confirmed by a notary public.
 - All annual inspection and maintenance protocols.

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